

REMARKS

The acceptance by the Examiner of the drawings filed with the application on November 4, 2003, is noted with appreciation.

A minor amendment has been made to the specification to correct a typographical error.

As stated in the title, the disclosed and claimed invention is directed to a method and apparatus to determine product weight and calculate price using a camera, and more particularly this is accomplished without a scale. The camera 12 in combination with the computer terminal 13 is used instead of a scale at point of purchase to calculate weight. The camera is used to visually identify the product as well as the total size (i.e., volume) of the product. Total density for the identified product is found by using a look up table in a database, and the weight of the product is calculated by multiplying size (i.e., volume) by density for that product. The total price can then be calculated by multiplying the calculated weight by the unit price. This method and apparatus can be applied both to cashier-assisted check out and to self-checkout, whereby the self-checkout customer need only place the product on the moving conveyor in order for pricing to occur.

Claims 1 to 11 are pending in the application.

Claims 1 to 11 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,434,257 to Mohan et al. This rejection is respectfully traversed for the reason that the patent to Mohan et al. does not show all the features of the claimed invention. Moreover, Mohan et al. do not suggest or otherwise teach the claimed invention.

The patent to Mohan et al. is assigned to a common assignee with the subject application. The invention of this application is a further improvement of the basic invention disclosed by Mohan et al. In making his rejection, the Examiner attempts to read the limitations of claim 1 on the Mohan et al. patent as follows:

“means for determining a volume of the product on image information from the camera”, citing calculating device 140, weighing device 170, col. 6, lines 13–19, col. 17, lines 34–38 and 50–57, and Figures 1, 15–17

“a database of lookup tables of densities of a plurality of products”, citing database 270, col. 16, lines 1, 2 and 13

“a computer terminal which receives product type and volume of the product information and accesses the database to determine a density for the product, the computer terminal computing a weight of the product as a function of volume and density of the product and then computing a price of the product as a function of price/weight ratio”, citing computer 140 and weighing device 170, col. 17, lines 34–50, col. 18, lines 41–63, Figures 15 and 17

Mohan et al. determine a count of objects as a function of weight, as determined by the weighing device 170, and size.

No such database is disclosed by Mohan et al. The database 270 is for object size characteristics. See col. 16, lines 1 and 2.

No such density determination used to compute weight is shown or suggested by Mohan et al.

The Examiner has clearly missed the point of the disclosed and claimed invention, and that is to eliminate the need for a scale (the weighing device 170 of Mohan et al.). As mentioned, this is accomplished by using a camera to visually identify the product as well as the volume of the product, then finding the density for

the identified product using a look up table in a database, and calculating the weight of the product by multiplying volume by density for that product. This totally eliminates the need for the scale is an expensive device requiring periodic calibration. This is an improvement on the basic system disclosed by Mohan et al.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1 to 11 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,



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